December 7, 2000

MEMORANDUM THRU ANDREW ATHY, CHAIR
SECRETARY OF ENERGY ADVISORY BOARD

TO BILL RICHARDSON
SECRETARY OF ENERGY

FROM ERNEST MONIZ
DEPARTMENTAL CO-CHAIR

JOHN MCTAGUE
EXTERNAL CO-CHAIR

SUBJECT: Contributions and value of the Laboratory Operations Board

The Laboratory Operations Board was chartered in 1995 to provide advice to the Secretary of Energy regarding the strategic direction of the Department of Energy laboratory system. It is also expected to assist in the coordination of budget and policy issues affecting laboratory operations and in the reduction of unnecessary and counter-productive management burdens on the laboratories.

The Board is composed of Departmental members, from the relevant Program Offices and representatives of the field offices and laboratories, and external advisors with experience in managing research and development operations in technical organizations and academia. The Board brings together those responsible for doing the Department's business with individuals from the private sector with extensive knowledge of industry best practices that can be applied to management of the laboratories.

The Laboratory Operations Board as a group has been guided by three key principles:

- The focus of the Department must be on output rather than process.
- Responsibility must be closely aligned with authority.
- The laboratories must be integrated into a departmental system. They are the tools by which the Department of Energy accomplishes its missions.

Working from this basis, the Laboratory Operations Board quickly established itself through the activities of its external members as a kind of independent broker concerned with the health of the DOE complex. It has made a number of recommendations in its 10 reports (listed at Attachment 1) which have been accepted by the Department and are in various stages of implementation. Some specific reports/accomplishments include the following:

- The Strategic Laboratory Missions Plan, Vols. I and II (July 1996). These volumes profiled the laboratories and provided the Board, the Department and Congress with a tool for following funds from the Department's appropriation to a specific research activity and to the performing institutions. This effort was the genesis for the Research and Development Portfolio Analysis and the follow-on Laboratory Profile Analysis Report.
- External Members Report on Headquarters and Field Structure Issues (September 1997. In its review of management practices, the Board considered various ways in which the Department might re-organize to establish clear lines of authority. The Board's recommendations were adopted in the Department's realignment of the field offices.
- Report of the Working Group on Foreign Visits and Assignments (June 1999). This report examined the approach most appropriate for use at the multi-purpose laboratories and recommended that security requirements should be dictated by the level of risk posed by the specific locations. The recommendations from this report were incorporated into a revised order on Unclassified Foreign Visitors and Assignments issued by the Department.
- The Department of Energy's Use of Merit Reviews (March 1999). This review reinforced the need for appropriate expert review of programs. The Board's recommendations have been incorporated into Departmental peer review processes.
- Review of Department of Energy's Laboratory-Directed Research and Development Program (January 2000). This review endorsed the need to provide the laboratories with some discretion in determining directions of scientific inquiry and suggest appropriate levels of support and oversight. The Board's efforts were instrumental in convincing Congress to restore support to previous levels.

The Board's impact, however, has been substantially greater than is conveyed by the list of recommendations alone. The Board functions as part of a network that circulates through the Department and its influence has been felt in many arenas. Four are listed below:

- The Laboratory Operations Board has been a driving force in bringing about the adoption of performance-based management. This continued focus of the Board has supported the efforts in contract reform and the institution of safety, health and environmental reform that resulted in the Integrated Safety Management Program.
- Using a set of management principles it derived, the Laboratory Operations Board examined alternative management structures and recommended the alignment adopted in the 1999 management reforms.

- The Laboratory Operations Board was instrumental, through its efforts to establish within the Department of Energy a clear linkage from mission area to field office and laboratory research and development activity, in introducing the concepts that culminated in the Research and Development Portfolios.
- The Board worked with the laboratories to develop a set of financial performance measures that are regularly reported by the laboratories and tracked by the Department. The process has impressed Congress as evidence of the Department's efforts to address accountability.

Through its activities, inquiries and consistent focus on improving management practices and structures, the Laboratory Operations Board has become a respected forum that has helped the Department in improving management practices. The Board has been instrumental in the development of many of the processes that have been put in place, but challenges remain:

- Institutionalization of performance-based management is an evolutionary process and is inconsistently implemented at the Department of Energy. Because of the constant push for compliance that emerges when unexpected problems arise there is always a danger of reverting to a process orientation at the expense of retaining a results orientation.
- The Department has a continued need to invest in the infrastructure that helps to keep the United States on the leading edge of science—old facilities must be renewed and new facilities are needed for new science, such as nanotechnology.
- There is a human resource challenge both at the Department of Energy and at the laboratories that dictates that the Department find new ways to develop in the very near future the technically trained people who will perform the science that enables all of the Department's missions.
- The creation of the National Nuclear Security Administration presents organizational and management challenges in terms of the continued ability of the Department to maintain the necessary environment in which the labs can and must function as a system to meet the Department's missions.

The Laboratory Operations Board brings expertise that can assist the Secretary of Energy in addressing the above problems. As previously stated, the external advisors are business people with experience in technical operations and with the capability to view the system from the outside. The perspectives they offer and their contacts throughout the private and public sector make them an invaluable asset to the Department. We strongly recommend that the Laboratory Operations Board be retained in the new administration.

Attachment (1)

Contributions of the Laboratory Operations Board
1995 - 2000

In 1995, the Department of Energy created the Laboratory Operations Board (LOB) as a subcommittee of the Secretary of Energy Advisory Board (SEAB). The LOB's charge was to provide strategic direction to the Department concerning the laboratories and to help provide a sharper mission focus and to encourage coordination among the laboratories. The LOB consists of 22 members, 9 external members and 13 Departmental members. The external members were appointed to six-year terms. Those invited to serve on the LOB as external members were selected based on their experience and accomplishments in academia, industry or government. The responsibilities of the external members included conducting studies and providing independent recommendations on issues related to the laboratories.

Since its creation, the LOB external members have issued ten reports with recommendations to the Department. The recommendations are intended to provide a sharper mission focus, to promote effective collaborations between the laboratories and between the laboratories and academia, industry or other government agencies. The focus has been has been to ensure that the Department continues to adhere to a more business-like, results-oriented, performance-based management approach with respect to its laboratories. The focus has also been to recommend management approaches intended to improve laboratory productivity by bringing research to support cost ratios into better alignment with the private sector research laboratories. The recommendations made by the LOB are reported to the SEAB. The recommendations listed in the following pages have been accepted by the SEAB and passed to the Secretary of Energy.

The LOB has also been concerned with and recommended that the Department establish clear roles for the laboratories. The delineation of the responsibilities of the Department and its laboratories was examined in the Laboratory Operations Board's "Strategic Laboratory Missions Plan" (July 1996). This document summarized the ongoing activities of each laboratory and identified laboratories with principal, major contributing and specialized participating roles in supporting the Department in carrying outs its missions. It recognized the importance of the Department's institutional planning process for reviewing each laboratory's programs, missions, institutional needs, future initiatives, partnerships, and overall operations within the context of the laboratory as an institution and as part of the Department's laboratory system. The "Strategic Laboratory Missions Plan" anticipated that roadmaps would be developed and implemented which would lead to further definition of the role of the laboratories in addressing each of the Department's missions. The Plan describes the major mission objectives that the Department of Energy executes through its laboratories and depicts the roles and responsibilities of the laboratories, universities and industry in carrying them out.

. The LOB's external member's most recent reviews include an analysis of the merit review program to determine ways to improve the process and a review of the Department of Energy's Laboratory Directed Research and Development (LDRD) Program to determine its health and the value of the work performed with this funding.

The following table lists each document developed by the LOB's External Members and the recommendations contained in the documents. In the spirit of Performance-Based Management, the LOB developed many of these recommendations to be process oriented. The Department of Energy's response to each recommendation and the resulting impact are provided. It is hoped that this review will provide insights into areas where further actions are necessary.

Attachment 1
12/13/00

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Report of the External Members of the Department of Energy Laboratory Operations Board, October 26, 1995			
DOE should provide clear incentives to the labs to help facilitate more aggressive cost-cutting efforts.	Accepted: - Process oriented and Implemented - To facilitate aggressive cost cutting by the labs, the Department has reduced unnecessary oversight burdens and changed procurement requirements from Federal norm to best commercial practice. Where appropriate, management fees incorporated into performance based contracts have been tied to the laboratories reaching negotiated performance levels. Measures for defining the performance include demonstrated productivity enhancement using productivity metrics. Note from Richard Hopf, Director, Office of Procurement and Assistance Management: A. Reduce DOE/Lab Administrative Burdens/Costs. Staff Reductions at DOE HQ (e.g., procurement staff reduced by 50%; contractor procurement staffing was also reduced substantially). Reduction of Federal/Contractor lead times for procurement and financial assistance. • Consistent Bench Marking of industry with laboratories. • Adoption of process re-engineering • Elimination of the Federal Norm for contractors • Establishment of contractor performance metrics (e.g., cost to spend ratio). Realignment of Oversight System. • Business Management Oversight program • Procurement/Property Balanced Scorecard Approach Electronic Commerce—Contractor system now exists at many Labs Consortium Purchasing--$30 million savings from teamed procurements Regulatory reduction in procurement and financial assistance by 50%.—Adoption of productivity metrics at the Labs (e.g., ratio of technical cost to support cost.) B. Performance-Based Contracting • Reduced process requirements and focused on performance outcomes. • Standard SC performance measures coupled	LOB will review effectiveness of DOE's Performance Based Management implementation during the Fall 2000. The DOE IG review suggests some areas for improvement. Savings include $30 million from teamed procurements and reductions in procurement and financial assistance achieved. Productivity metrics provided evidence of cost saving trends	LOB was instrumental in encouraging the Department to issue its policy on performance based management contained in the Deputy Secretary's memorandum. DP is concentrating on performance based management to encourage the labs to cut cost and reduce unnecessary oversight burdens. Implemented in the NREL contract in accordance with DOE's new fee policy. The Golden Field Office monitors the performance twice annually. Note from Dr. Bruce Tarter, Director, Lawrence Livermore National Laboratory: Resource/cost management is effectively covered under the DOE/UC/LLNL results-oriented performance-based management (PBM) process. Cost management is reported at both the individual functional area level for administration and operations (e.g., procurement, property management, financial management, etc.) and for the institution as a whole. The DOE/UC/LLNL PBM process requires an annual self-assessment against predefined performance measures and validation and rating of the Lab's reported performance by the UC and DOE. With respect to cost management, we have had a long-term strategy to integrate continuous process improvement, re-engineering and institutional cost reduction. A concentrated effort to "re-engineer" the overhead began in FY1 993 to make more funds available for the programs. Major institutional cost savings have been realized, substantially increasing the buying power of the programs. The significant increase in DOE compliance requirements, particularly related to security and ES&H, is making it difficult to continue our positive and dramatic trend in institutional cost reductions, While the Laboratory continues to pursue operational efficiency gains, increased compliance requirements are driving up institutional costs and offsetting savings. The

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	with local business process measures. • Linking of performance outcomes to available financial incentives. • Process of continuous improvement applied to performance-based contracting. • Issued make-or-buy policy to ensure functions performed at least cost.		impact of this situation means fewer dollar savings can be allocated to direct mission work and now investments in institutional infrastructure.
DOE and laboratories together should identify functional areas in both entities where work and workers can be removed to enhance R&D productivity.	Accepted: - Partially Implemented--The Laboratory Operations Board worked with the laboratories to develop three metrics which would provide a picture of cost savings and fiscal efficiencies and monitored the productivity enhancement efforts of the laboratories related to reducing support costs. See Richard Hopf's comments, above.	The metrics traced a trend of productivity enhancement over the next several years. Over $2 billion in cost savings was achieved over the next 5 years.	In the last two years, productivity gains have slowed as the Department has focussed on increasing security, environmental safety and health and other mandated requirements that have required additional funds for other than research and development functions. DP concurs. DOE and NREL have a make-buy program that helps to focus the lab on doing research as opposed to commercially available activities. In addition, DOE reviews the indirect costs at NREL annually to ensure that the Lab is focusing on the most productive activities.
DOE's Strategic Laboratory Mission Plan (SLMP) should explain the basis for DOE decisions to place funds at laboratories, universities, or the private sector and should define major long-term outcomes expected.	Accepted: - Being Updated – The DOE Institutional Plans reflected this process and were expanded to include a 15-year projection with the five-year plan for each of the major laboratories. Performance measures were developed with long-term outcome expectations. The Roadmap initiative provided the basis for these decisions. They will ultimately be incorporated into the revised Mission Analysis and Laboratory Mission Profiles and reflected in the laboratories' institutional plans.		The 2000 "Mission Analysis and Laboratory Profile Report" will continue this effort. The Department's R&D Portfolios and Roadmaps will be reflected in this document. DP is participating in this effort. EERE conducts an internal peer review process in the spring of each year prior to the budget formulation process. The Office of Planning, Budget and Management evaluates all programs and makes comparisons for the benefit of the Assistant Secretary's decision-making process. In addition, EERE conducts procurement planning and implementation reviews in the spring for the immediately upcoming fiscal year.
DOE and laboratories should develop and enforce a clear set of roles and responsibilities for both DOE and the labs that contribute to the effectiveness and efficiency of lab operations.	Accepted: - In process - The Department provides funds and general programmatic guidance to the research performers who are responsible for actually doing the work and bringing the results to the Department which assesses the performance. In 1998, EM issued its Environmental Management Research and Development Program Plan: Solution-	The Secretary's HQ/Field Realignment requires the Field Offices to report to the LPSOs, which clarifies and reinforces the roles and responsibilities for laboratory operations under the program line management.	DP is focussing on laboratory program efforts in support of stockpile stewardship by providing clearer guidance than in the past. Reaching the best guidance that balances program need with minimum essential management oversight is an ongoing process. A Memorandum of Agreement between DOE HQ

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	Based Investments in Science and Technology. In 2000, EM issued a Management Plan. See Richard Hopf's note, above.	EM: Both plans address roles and responsibilities for DOE, Operations Offices, and Laboratories for all levels of programmatic participation. The Program Plan was awarded the National Association of Environmental Professionals' "National Environmental Excellence Award."	and Golden Field Office and NREL was developed beginning in Jan. 2000. This document is expected to be signed in Oct. 2000. The NREL contract was recompeted in Nov. 1998, and this event precipitated the development of the MOA. Note from Bruce Tarter, Director, Lawrence Livermore National Laboratory: Resource/cost management is effectively covered under the DOE/UC/LLNL results-oriented performance-based management (PBM) process. Cost management is reported at both the individual functional area level for administration and operations (e.g., procurement, property management, financial management, etc.) and for the institution as a whole. The DOE/UC/LLNL PBM process requires an annual self-assessment against predefined performance measures and validation and rating of the Lab's reported performance by the UC and DOE. With respect to cost management, we have had a long-term strategy to integrate continuous process improvement, re-engineering and institutional cost reduction. A concentrated effort to "re-engineer" the overhead began in FY1 993 to make more funds available for the programs. Major institutional cost savings have been realized, substantially increasing the buying power of the programs. The significant increase in DOE compliance requirements, particularly related to security and ES&H, is making it difficult to continue our positive and dramatic trend in institutional cost reductions, While the Laboratory continues to pursue operational efficiency gains, increased compliance requirements are driving up institutional costs and offsetting savings. The impact of this situation means fewer dollar savings can be allocated to direct mission work and now investments in institutional infrastructure. SC laboratory Institutional Planning process reflects clear roles of HQ, field and labs and includes on-site reviews of both programs and effectiveness and efficiency of lab operations

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Strategic Laboratory Missions Plan—Phase I, July 1996 **Volume I** **Volume II: Mission Activity Profiles**			This descriptive document defines roles and missions of the Department and laboratories and delineates the management principles and organizational characteristics that the Department and laboratories should strive to fulfill. Volume I presents laboratory profiles, and Volume II presents a mapping of the Departments R&D programs onto the DOE laboratory structure.
Second Report of External Members (September 1996)			Note: This report included a description of policies and processes affecting the labs and the Laboratory Operation Board's planned activities. It did not include recommendations.
Review DOE R&D programs with regard to rationale for mix of R&D performers.			Implemented in Strategic Laboratory Mission Plan & Laboratory Profile Report EERE conducts an internal peer review process in the spring of each year prior to the budget formulation process. The Office of Planning, Budget and Management evaluates all programs and makes comparisons for the benefit of the Assistant Secretary's decision-making process. In addition, EERE conducts procurement planning and implementation reviews in the spring for the immediately upcoming fiscal year. SC uses external advisory committees, peer and merit reviews, and HQ program reviews in determining its mix of research performers. Strong emphasis is placed on effective collaboration among lab, university and industry performers.
Examine DOE's small mission-specific labs to validate their roles and determine if they can be privatized, closed, or candidates for alternative contracting mechanisms.			LOB external members conducted a review and issued a report in 1998. Recommendations are included under the Small Labs Report, below.
Examine institutional and strategic plans for multi-purpose labs and how they contribute to DOE mission.	In 1999, EM Headquarters established a Laboratory Management staff capability. An on-site institutional planning review was held at INEEL in June 2000.	EM, SC, NE, and FE jointly reviewed INEEL's proposed R&D for FY '01 and provided	LOB members participated in a workshop with Lab Directors and DOE. The effort resulted in the streamlining of the institutional planning process

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		comments to strengthen their contribution to respective DOE missions.	and validating its value. SC: Full implementation of SC Institutional Planning process ensures annual reviews of the contributions each SC multiprogram lab makes to DOE missions.
Document and review the mechanisms used in DOE for evaluating the scientific and technical merit of the work in the labs.	Peer review process is conducted and has been validated by external reviewing organizations. NREL National Advisory Council.		LOB external members conducted a review and issued a report in 1998. Recommendations are included under the DOE's Use of Merit Reviews Report, below. SC: SC peer and merit review processes are documented and LOB peer review study validated their effectiveness.
Third Report of External Members (September 1997)			
DOE should rationalize and simplify its headquarters and field management structure to make a more effective line management, clearer roles and responsibilities, and reduced cost.	Accepted: Options for improving headquarters and field management structure were reviewed by the Department and changes were put in place in April 1999. EM is the responsible Cognizant Secretarial Officer for one multi-program and three single program R&D laboratories (including 2 Government Owned Government Operated laboratories). To oversee the institutional health of these R&D laboratories, EM established a Laboratory Management team. See Richard Hopf's note, above.	In April 1999, after the Department concluded additional reviews and assessments, the Secretary of Energy realigned the Department's organization and management structure in line with the option recommended by the LOB. EM: The Laboratory Management Team has issued a white paper and management plan on policy and roles and responsibilities.	The NNSA organization is still in transition/development. The principles advocated by the LOB will be considered as part of the organizing process. *See Tarter, page 4, above.* SC: NNSA helps clarify SC's roles and responsibilities at Oak Ridge.
DOE should implement new principles for reporting that will let researchers spend more time on research and less time writing unread reports.	Accepted: - Partially Implemented - A set of principles for technical reporting, which include appropriateness, annual reporting, minimum content, and convenience (such as electronic submission), has been adopted by the R&D Council. The Office of Fossil Energy will began implementation on March 15, 1998. The Fossil Energy experience was reported and discussed by the R&D Council. The FMC has also served as a filter for additional reporting requirements; to ensure unnecessary reporting is not required. Note from Richard Hopf, Director, Office of Procurement and Assistance Management: Financial Assistance Letter 98-02 was published on April 17, 1998, to provide guidance on the	The pilot was a success. Of 12 technical reports collected prior to the pilot, 7 were eliminated, the frequency of 1 was reduced from quarterly or semiannual to yearly, and 4 remained unchanged. For the period of the pilot, cost savings to the Government were estimated to be between $30,000 and $70,000, and cost savings to the R&D research community between $43,000 and $110,000. Fossil Energy's National Energy Technology Laboratory, which executes the procurements, and manages the R&D contracts for	NNSA/DP is watching this Fossil Energy effort with interest. Lessons learned will be considered in developing guidance to the labs on research, especially fundamental research not driven by immediate program requirements. Implementation of EERE's Strategic Management System in late 1999 highlighted the many reports produced by the Lab. After review, DOE –Golden has begun monitoring the number and type of reports and assisting with defining priorities. Some new reporting requirements have arisen as a result of congressional and/or DOE requirements in security & safeguards, ES&H,

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	management of financial assistance report deliverables. The guidance included responsibilities for contracting Officers and Contracting Officer Representatives regarding the need for, and frequency of, report requirements so that unnecessary report requirements are not established.	the Fossil Energy R&D program, is still using the Principles of Reporting.	counter intelligence, laboratory travel. *Note from Bruce Tarter, Director, LLNL:* DOE continues to have extensive and burdensome reporting requirements, stipulated in DOE directives, for STI (scientific and technical information) through OSTI.
DOE should develop a plan to strengthen its R&D program management through hiring, training, and using or transferring personnel from industry, universities, or laboratories.	Accepted: - Partially Implemented - An internal DOE committee is examining options for ensuring that a continuing supply of skilled and trained technical program managers is available to the Department. The committee will complete its work and issue a report in March 1998. Office of Human Resources: In April 2000, a Research and Development Technical Capability Panel comprised of senior Headquarters managers issued a report to Under Secretary Moniz which provided several recommendations for strengthening DOE's R&D scientific and technical workforce. Included in the recommendations were (1) immediately hiring up to 50 experts in the areas of science and engineering (2) initiate a technical intern program; (3) develop a comprehensive training program for R&D managers in areas crucial for success such as project management; and (4) seek legislation and/or "demonstration project" authority through the Office of Personnel Management (OPM) to establish more flexible and responsive pay systems for Federal R&D Managers In addition, DOE earmarked approximately $10 million in FY 2001 scientific and technical program office budgets to continue outreach, hiring and training programs aimed at improving its Federal scientific and technical workforce. A six-point plan has also been established in support of the Secretary's "Women in Science" initiative to enhance DOE's capability to recruit and retain highly talented and diverse contractor and Federal technical and scientific employees.	Workforce 21 Plan is supportive of this recommendation. Current status of initiatives: 1. Recruitment has begun and over 10 hired to date, 2. The intern program was initiated with 15 hired in 2000 and another 20-25 planned for FY 2001, 3. New curriculum in project management is currently being designed by DOE Office of Engineering and Construction Management, 4. Discussions have begun with OPM on "demonstration project authorities. These actions and others are currently being coordinated through DOE Chief Operating Officers Council and the Under Secretary. Note from Tarter, Director, LLNL: The Laboratory's principal asset is our quality workforce, and workforce excellence continues to be a management priority. Challenging scientific programs, world-class research facilities, and a collegial environment are critical to attracting and retaining an outstanding workforce. Our S&T achievements and breakthrough accomplishments are the product of a highly talented, productive, motivated, flexible and diverse staff that is committed to the Laboratory's goals. In spite of our continuing efforts to implement institutional programs that enhance the quality of our	The recruiting, retention and development of NNSA/DP technical managers are very high priorities within the administration. There is a significant shortfall of these technical managers to meet the needs of the Stockpile Stewardship Program. As part of implementing the EERE Strategic Management System, we have evaluated all programmatic activities and defined a core set of programs. In addition, we have launched a series of activities aimed at improving program management. Lastly, we have begun defining and developing learning activities to improve the competence of our program managers – aimed at qualification of all program managers. SC: SC has improved its technical management capability with the help of excepted service. Constraints on detailees from labs and universities continue to be a challenge.

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		workforce, we have begun to have serious problems with respect to staffing and are losing people in a number of important disciplines. Numerous factors are contributing to an increase in staff terminations and difficulties in attracting new scientists. These factors include: the highly competitive job market for "hot skills"; external events affecting the Lab (such as the status of the UC contract extension and heightened scrutiny by Congress); employee perceptions of the changing workplace that includes a significant increase in personal accountability and responsibility for compliance requirements and potential limits on scientific and intellectual freedom; and an aging scientific and engineering workforce coupled with a national trend in the decline of U.S. citizens seeking Ph.D.'s. Developments at the congressional level and within DOE have resulted in more stringent security requirements, the selective application of polygraph testing, and restrictions on conference attendance, travel, and foreign visitors and assignments, which limit our ability to interact with the broader scientific community. From an employee perspective, these changes have the potential to undermine intellectual freedom and scientific creativity and risk taking that are so essential for an R&D laboratory. Changing workplace conditions have placed less emphasis on mission accomplishment and more emphasis on issues related to regulatory compliance and expanded management oversight.	

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Each R&D Assistant Secretary should determine if there are benefits to be gained from concentrating their work in a smaller number of performers and report back to the Board with proposed changes.	Accepted: - The recommended analysis is ongoing. Reports will be made to the Laboratory Operations Board on progress. EM's R&D mission is to develop and deploy innovative technologies to cleanup contaminated weapons manufacturing sites across the U.S. EM's strategy is to competitively select the best research and development from among national laboratories, universities, and industry.	In order for EM to successfully accomplish its mission, it is essential to select the best research and development performers from the national laboratories, universities, and industry.	NNSA/DP does not believe that reducing the number of performers below the existing set would be beneficial to their programs at this time. EERE conducted this evaluation and is making changes in the focus of our procurement actions. Program budget decisions are also a driver in this area. Care must be taken to ensure the S&T base at the laboratories is adequate and important core competencies are not lost.
DOE should set priorities for the energy mission, develop a roadmap for future major scientific facilities, and develop greater integration across R&D programs and report to the LOB on the progress.	Accepted: - Partially Implemented – (a) The Department has the lead for developing a government-wide energy plan. (b) The Office of Energy Research will develop its roadmap for new scientific facilities on a program by program basis. The advisory committees for each program within ER were expected to participate extensively in the process. The plan focussed on the next ten years but attempted to project needs through 2015. Portfolios were completed in the Spring of 1999 and updated in February 2000. Guidance for new facilities and plans for closing current ones, as well as international participation, are included in the report. One of the most complex problems contemplated by the roadmap is the need for new computational facilities. The offices of Energy Research and Defense Programs are taking the lead. (c) The R&D Council tackled this problem in order to provide a more integrated view. (c) The restructured R&D Council, chaired by the Under Secretary, is promoting the integration of the Department's R&D, both within and across program areas.		
External members report on Headquarters and Field Structure Issues (October 1997)			Assessed findings and recommendations of the Institute for Defense Analysis study to determine if they were applicable not only to Defense Program laboratories but also to DOE laboratories in general
Identified 11 general management principles that should guide DOE's decisions on the management structure for the laboratories.		The management principles were shared broadly. They are consistent with the principles underlying the Secretary's realignment of the field offices under the LPSOs.	Management principles are as follows: • Responsibility should be clearly defined. • Accountability should be evident. • Responsibility should be aligned with resources. • The management structure should be as

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			simple as possible. • Decisions should be made at the lowest appropriate level. • ES&H should be managed as a line responsibility. • The management system should allow for differences among facilities and laboratories. • DOE programs should be able to place work at the best R&D performer (stovepiping should be discouraged and management system should allow programs to use the full laboratory system). • There should be appropriate integration across DOE Programs. • DOE representation in a region should be clear. • Unnecessary reorganizations and personnel disruptions should be avoided. DP strongly endorses the above management principles EERE: Recompeted the contract in Nov. 98. DOE reviewed all orders and only placed the appropriate orders onto the contract. DOE approves all key personnel & management structure. SC: SC is a strong supporter of these principles and has worked within the DOE realignment to ensure their proper implementation. SC has been actively engaged in the FMC process to ensure all new DOE staff policies/requirements are consistent with the above principles.
Recommended that the operations offices report to a Program Secretarial Office	Implemented in 1999 management reorganization		**NNSA/DP has implemented the 1999 management reorganization and is continuing to reexamine roles and relationships between HQ and the Operations Office.**
Review of the Department of Energy's Small Laboratories, June 26, 1998			
That EM seek clarification and refinement of the cost estimate for closure of the Environmental Measurement Laboratory (EML) and perform a cost benefit analysis of moving the laboratory to Brookhaven National Laboratory within next 6 months.	EM: Following General Services Administration estimates of $ 7 million to close the existing EML facility in New York City, an independent third party performed a cost-benefit analysis which concluded there was no definitive cost advantage for moving EML to Brookhaven.	Secretary Richardson visited EML and met with employees to determine their preference of staying in NYC or relocating to BNL; employees unanimously selected staying in NYC.	
That an outside organization, such as the	EM: Work to adopt a joint national standard for	A joint ANSI standard will	

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National Research Council (NRC), be asked to re-evaluate the need for separate DOE standards for personnel monitoring for exposure to radiation within next 6 months.	personnel dosimetry performance testing has been ongoing. DOE has been participating in developing a joint standard, ANSI 1311 for personnel dosimetry performance testing. The intent is for DOE to adopt this ANSI standard when it is completed.	overcome the issue the LOB was addressing.	
That an outside organization, such as the NRC, be asked to analyze the benefits of consolidation of the standardization and evaluation functions performed by the EML and the Radiological and Environmental Sciences Laboratory with those of the National Institute of Standards and Technology.	DOE SEAB and EM representatives met with NIST to determine if that laboratory was interested in adding EML and RESL functions. Informally NIST indicated it was not interested in adding either DOE's laboratory accreditation program involving extensive performance testing and onsite technical assessments or certification of standards.	As NIST functions are extremely different than EML's and RESL's, both DOE laboratories are continuing with their mission assignments.	
That DOE analyze its relationship with Ames Laboratory to determine if the more flexible approach used with Ames should be a model for contractual relationships with the management of other DOE research facilities.	Not accepted after evaluation by Office of Procurement and Assistance Management.		
That the Oak Ridge Institute for Education and Science be encouraged to enhance its operations through exploration of alternative contractual arrangements with DOE.	Accepted: DOE has competed and awarded a new contract for the operation of ORISE that better matches the program's activities at ORISE and DOE's needs. ORISE is no longer designated as an FFRDC.		By memorandum dated June 30, 1998, former Secretary Pena accepted the recommendations of the LOB Small Laboratories Study and directed that steps be taken to eliminate ORISE's classification as a laboratory. During the extend/compete evaluation in July 1998, former Acting Secretary Moler approved a recommendation to disapprove the request to extend the current laboratory arrangement as a Federally Funded Research and Development Center. The designation was formally removed on February 22, 1999, and a new support service contract arrangement was awarded on April 28, 2000. Consistent with LOB advice, DOE has retained the performance of the former laboratory's functions through a competitively awarded contract with ORISE. (Note from Richard Hopf, Director, Office of Procurement and Assistance Management
That DOE would be best served if it moved toward collocation of small laboratories with larger facilities and if it avoided the establishment of small, isolated organizations to perform limited functions where professional development is difficult and the environment for research may not be optimum.			
That if new programs or tasks are identified, DOE should consider			

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incorporating them into work of existing laboratories, other Federal laboratories or to work performed at universities or industry in order to avoid administrative and management costs associated with small, limited-scope entities.			
Laboratory Profile Report; Laboratory by Laboratory Section, March 4, 1999			Descriptive report; no recommendations were made.
Department of Energy's Use of Merit Reviews, March 17, 1999			
That DOE follow through on 1997 commitment to strengthen its management of the review process. The commitments included: • Establishment of guidelines for conducting peer review at various levels of management. • Periodic and random sampling of the use and effectiveness of peer reviews. • Development of a process for linking peer review principles and methods to other evaluation activities. • Development of a process for linking peer review principles and methods to other evaluation activities. • Development of ways to reward effective use of peer reviews. • Research on improved methods for peer reviews. • Expanded use of peer reviews as part of the Work Authorization Process. • Utilization of enhanced quality Field Task Proposals.	EM's use of peer review has steadily been refined in the last three years. EM Science Projects are peer reviewed as part of project review and selection. Peer review of technology projects is done at various stages of development with the results being used as input for go/no-go decisions for project continuation. The American Society of Mechanical Engineers implements peer review for technology projects. There is formal interaction with the National Academy of Sciences (NAS) Board on Radioactive Waste Management and the Board on Engineering and Environmental Systems. The NAS has reviewed EM's approach to peer review, priority setting and decision making. SC has used the report's recommendations to strengthen its already effective peer review process. From Richard Hopf, Director, Office of Procurement and Assistance Management. Financial Assistance Letter 97-05 dated December 18, 1997, was issued to clarify the Department's policy on the application of the objective merit review process. In conducting merit reviews, officials were directed to ensure that merit review processes were used for noncompetitive as well as competitive applications; and that merit reviews are performed for all discretionary financial assistance activities. On October 20, 1999, the Department amended its assistance regulations to more clearly state that DOE's policy is that all discretionary financial assistance be awarded through a merit based selection process and required program offices to establish a merit review process covering the financial assistance programs that they administer. A Merit Review Guide was issued on January 21, 2000, to provide guidance on conducting merit	The EM project selection process is more credible and has become transparent to interested parties. EM R&D programs also benefit from strengthened peer review processes.	NNSA/DP strongly endorses the peer review process and continues to insure that peer reviews of its programs are conducted where appropriate for technical reasons and cost effective for programmatic reasons. Peer review process is conducted and has been validated by external reviewing organizations. NREL National Advisory Council.

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	reviews and to promote a more uniform and disciplined approach to the review process. Although programs may continue to use their internal procedures for conducting merit reviews, the procedures must be consistent with the published guidelines.		
Reestablishment of the Office of Program Analysis to help institutionalize these commitments and serve as a resource for program offices and laboratories.	This office, in the Office of Science, has been re-established as the Office of Planning and Analysis. However, the office is funded at a much lower level. The Office of Strategic Planning and Program Evaluation in the Office of the Chief Financial Officer develops the Department's strategic plan, performance agreement, and an accountability report. However, this office depends upon the self-assessments produced in the program secretarial offices in determining if their performance goals have been met.	The office is available to assist on an agency-wide basis, but the independence of a review may be compromised because the customer must share the cost of the review.	How NNSA/DP will interact with the Office of Program Analysis has yet to be *determined.*
That general agreement should be reached on how to characterize the different types of peer and merit reviews in order to help the Department better explain its extensive use of reviews.			
Report of the Working Group on Foreign Visits and Assignments, June 8, 1999			
As a general principle, security requirements should be dictated by the level of risk posed by specific locations, not the fact that classified information or work may exist elsewhere on site.	A draft Order on Unclassified Foreign Visits and Assignments is in process and should be available for review in early October 2000. It will reflect many of the recommendations of the Working Group including security requirements driven by risk. [From Office of Foreign Visits & Assignments(OFVA)]		NNSA/DP agrees with the principles set forth in this report. Much work needs to be done to ensure that lab and DOE employees understand the principles and apply them judiciously. NREL/GO follows these principles.
A graded approach that balances security concerns with mission objectives should be adopted.	Accepted: Several of the SC labs were designated as Tier III labs and are exempt from certain security-related requirements. OFVA: A Policy Review Team chaired by SO-24 is assessing a graded approach, and it will be submitted to the Field Management Council for consideration when completed.	OFVA: Will provide a level of clearance that achieves appropriate level of security without maintaining unproductive additional clearance requirements.	NNSA/DP agrees with the principles set forth in this report. Much work needs to be done to ensure that lab and DOE employees understand the principles and apply them judiciously. NREL/GO follows these principles.
A distinct set of policies and specific procedures should be drafted for foreign visitors and assignees at multi-purpose laboratories with limited classified information.	Partial exemptions have been granted for certain labs with limited classified information		EERE: Done.
The Counterintelligence Implementation Plan should be revised to include Lawrence Berkeley National Laboratory among the laboratories that are exempted	The CI Implementation Plan has not been revised. However, last year the Deputy Secretary approved exemption status for several laboratories from the	SC: LBNL is now a Tier III lab.	(NNSA/DP no comment, not a facility with DP oversight)

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from the requirement for prior indices checks on visitors from all sensitive countries.	indices check requirement. LBNL is included in that list. This change is reflected in DOE Notice 142.1, Unclassified Foreign Visits and Assignments. (From Office of Counterintelligence)		
The reform of the Department's security programs should be done within the context of the new management structure and should ensure the clear alignment of responsibility and accountability for security.	OFVA: The draft order for Foreign Visits and Assignments implements the Notice and Policy from July 1999 to provide transparent accountability and responsibility to local approving officials in the conduct of foreign visits and assignments	OFVA: The development of the national database for Foreign Access Centralized Tracking System (FACTS) has proven effective in managing and processing information and clearances	In accordance with the Department's approach to Security Management, NREL now lists its budget request for security as direct mission costs.
The responsibility to approve unclassified foreign visits and assignments should be delegated to the Laboratory Directors and they must be held responsible for their decisions.	OFVA: On October 12, 2000, the Moratorium on approval of foreign visits from "sensitive countries" ended. This will end the current requirement to obtain the Secretary's approval for each foreign national visitor from a sensitive country.	OFVA: Local approving officials will be fully accountable and responsible for approval of foreign visits and assignments	EERE: Done.
The Field Management Council should be the vehicle used to review and approve draft policies and procedures for these multi-purpose labs.			EERE: Done. *Comment from Tarter, Director, LLNL:* The FMC is serving as an effective senior management forum for the review of DOE policies and directives before they are issued complex-wide as either a draft for review and comment or as official policy. The flow-down of information on FMC activities to the contractor level, however, could be improved to provide for more timely sharing of information. The DOE maintains both agendas and minutes of FMC meetings and a "Status Report on Current Actions." Agendas and minutes should be posted to the FMC Web page (http://www.ma.doe.gov/mo/moindex.html) in a more timely manner with notification to "interested parties" using the highly effective "Alert" system on DOE Explorer (http://www.explorer.doe.gov:1776/saveq/alerts.html). The "Status Report on Current Actions," a valuable checklist for contractors as well as DOE, is not made readily available to contractors. We suggest that the current "Status Report" be posted to the FMC Web page for viewing by all parties. It is useful for management and subject matter experts at the contractor level to be aware of issues that are being worked by the FIVIC. This Status Report serves as an effective "heads up" for pending directives and policies. We remain supportive of the DOE's Directive System that

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			provides a process for complex-wide review and comment on draft directives prior to official issuance, and DOE's effective use of Web-based resources to distribute directives and inform the complex of their availability. Over the past year, a plethora of new directives, particularly in the security area, have been issued on an emergency basis and have, therefore, circumvented Directives System. In addition, HQ offices have tried to dictate implementation of directives at the contractor level, ignoring (and thus violating) the role of the local DOE contracting officer and prime contract administration process. In addition, DOE guides are being issued with language that can be interpreted as making them mandatory. We encourage DOE to adhere to the policies and processes documented in its official Directives System.
There should be separate policies for foreign visitors and foreign assignees. Prior indices checks for all assignees from sensitive countries should be required, as well as for assignees from any country who has access to sensitive countries unless exempted by the Atomic Energy Act,	OFVA: The Draft order and the Policy Review Team examining the opportunities for a "graded " approach are designing a lower level of mandatory process for visitors from non sensitive countries dealing with non sensitive subjects in open/generally accessible areas (subject to specific definition)	OFVA: A graded approach to foreign visits and assignments access will occur with full implementation	The Department does not have separate policies. DOE, GO and NREL do not conduct indices checks.
Existing designations, definitions for sensitive subjects and technologies and the associated security regimes are appropriate and sufficient, and a separate and unique approach is not required.	OFVA: Under review in the context of the draft order; no major change anticipated.		
Review of the Department of Energy's Laboratory Directed Research and Development Program, January 27, 2000			
Congress should immediately restore the Lab-Directed Research & Development program at the DOE multi-program laboratories to at least the 6 percent level and should restore the Environmental Management programs to the LDRD base.	The Department distributed the report to influential members of Congress and subcommittee staffers. External members of the LOB briefed their findings and recommendations to Congressional staffers. EM: As part of the FY '01 discussions with House Energy and Water Appropriations Committee staff, DOE learned there is a need for additional information and understanding about the LDRD program. EM, SC, and DP jointly developed and provided a white paper for Congressional Committee staff to explain how DOE manages its LDRD program. Based on Congressional language, EM funding is being restored to the LDRD base.	EM: Sufficient LDRD funding is integral to recruiting and retaining high quality scientists to the national laboratories. The laboratories use LDRD funding to explore new mission research areas and to do cutting edge research that is not part of their programmatic mission assignment work.	NNSA/DP fully endorses the LOB report on LDRD. The management/oversight process for LDRD is continually being reexamined to address the inherent conflicts between program concerns that could lead to micro-management and the fundamental principles of world class research and development. EERE runs a DDRD program that is based on employee suggested research. EERE dedicates 2% of NREL's budget authority to DDRD. DOE-HQ sends a letter designating the dollar amount each fiscal year. EERE has issued a formal policy and procedure for the execution of the DDRD program.

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			SC: SC fully supports the implementation of the recommendation as necessary for the continued vitality of the LDRD program at the DOE labs.
The Department should simplify LDRD oversight and approval processes to be more consistent across the Department and with industry best practices.			NNSA/DP oversight and approval process reflects concerns of Congress, GAO audits, and IG reports. The process is more complex than industrial practices to help ensure accountability of public funds. EERE: Done. SC: SC continually reviews its LDRD oversight and approval process to ensure it offers the laboratory with enough flexibility to operate a successful program and the Department adequate management tools to oversee the program. Effectively.
In the design and implementation of the proposed DOE reorganization, careful consideration should be given to ensuring continued support for the defense science base and the continued ability of the LDRD program to serve all aspects of the laboratories' programs.			NNSA/DP continues to focus the LDRD science and technology direction decision with the individual laboratory director. Quarterly reviews of the program at all of the NNSA/DP laboratories helps ensure future defense science needs are being addressed. SC: SC strongly supports this recommendation and is working to ensure the LDRD program continues to be used appropriately by the labs in developing new and innovative ideas and concepts that support all of the lab's program areas.